The actiNAS Series allows simplification of the ever-growing need for business continuity and data retention. Providing storage solutions that are designed to provide low total cost of ownership, high performance, robust functionality and unparalleled ease of use.

Product Highlights

Optimized System Density
Modular design facilitates easy system upgrades, installation and maintenance. Compact design maximizes rack space usage

Ease of Deployment and Recovery
The actiNAS Series are relatively easy to deploy without drastic reconfigurations to the network for file-level or block-level access

Easy Backup / Archiving Integration
The actiNAS Series offer connectivity support for external tape unit or tape autoloader via its SAS controller which allows direct connection to a tape device, autoloader or libraries.

Flexible and Compliant with Future Technology
The actiNAS Series is designed to meet today and tomorrow's demanding open-systems requirements while establishing a new standard for life cycle longevity with field-replaceable host interface cards

High Availability
Takes advantage of proven features including a high performing and scalable operating system, data management software and redundancy features

Maximization of Resources
Highly efficient storage utilization makes it possible for dramatically reducing consumption of raw storage, power, cooling, and space.

Windows Storage Server 2008?

The amount of data supported within the organization continues to grow every year. Regulatory requirements, archival demands and data availability push storage requirements to their limits. As the datacenter grows, so does power consumption, physical space requirements and the need for improved hardware to handle the massive volume of data. Administrators need more than just raw storage capacity, but to implement the storage techniques and strategies that help them prioritize data and provide a standard of service. Storage demands will continue to grow and a storage solution is needed that can grow with the demand. Windows Storage Server 2008 can enable your organization to optimize your datacenter storage requirements.

Microsoft Windows Storage Server 2008 is built upon an optimized release of the reliable and flexible file services of Windows Server 2008 for better file serving performance. Microsoft then adds advanced storage technologies such as file de-duplication and an iSCSI software target for unified file- and block-based storage and packages it for delivery within storage appliances. Similarly, actidata then offer specialized hardware and introduce additional software components to create WSS08-based appliances. Windows-powered storage appliances give customers new storage capabilities, simplified deployment and easier management while assuring seamless synergy in their Windows infrastructure in a cost-effective and high-performance platform, and is delivered through us.

Built upon Windows Server 2008

Microsoft Windows Storage Server 2008 (WSS08) provides file services that are built upon the reliable and flexible file services within Windows Server 2008. WSS08 provides a solid mid-market to enterprise file serving solution with easy manageability and powerful file serving features on a mature base platform and using industry standard hardware. WSS08 is optimized from WS08 for performance in the file serving role, as well as by the hardware partner from basic server configurations - but maintains compatibility with other Windows management tools from Microsoft and third-party Windows solutions.

Advanced Storage Technologies

Windows Storage Server 2008 extends the basic functionality of a file server providing advanced technologies including file & block storage with **iSCSI** and data deduplication capabilities with **SIS**. These extended functionalities are designed to be easy-to-use and function transparently to the users of the organizations file infrastructure and require very little maintenance.

Simplified Deployment & Management

Windows Storage Server 2008 is deployed in an appliance form-factor which means hardware and software requirements are pre-configured vastly simplifying the deployment tasks normally associated with a new file server. The appliance form-factor also greatly reduces the required amount of time to deploy removing many management tasks and minimizing the impact of deployment on the organizations file infrastructure.

Single Instance Storage (SIS)
Among the additional storage-centric capabilities provided in Windows Storage Server (WSS) appliances over a traditional Windows Server is file deduplication through Single Instance Storage (SIS). SIS delivers built-in file de-duplication to optimize storage capacity by actively comparing and eliminating identical files on file sharing volumes. Duplicate files are transparently replaced with file system links to the single copy retained in the SIS Common Store -- saving significant amounts of capacity.

Optimizes Storage Capacity
Single Instance Storage (SIS) provides data deduplication for Windows File Services. It can significantly impact the amount storage consumed within an organization. It's not uncommon to recover between 25-40% of existing disk space once the file consolidation has completed. Easy-to-use tools and a transparent operation means the technology is relatively easy to use and requires very little maintenance.

Improves File Server Performance
SIS minimizes the amount of physical data allowing for quicker backups and recoveries. Loads from file caching and file accesses are reduced and everything operates without users even being aware that many of their files are centrally stored.

About actidata
actidata Gmbh, based in Dortmund (Germany), is a young and innovative IT company with outstanding solution competency in the backup and archiving area. The company is active in the core market in Europe and Asia and focuses on the corporate customer segment. **actidata** aims at establishing itself as a leading storage provider in the B2B area. A highly motivated and experienced team of professionals is committed to the superior quality and reliability of the **actidata** products: These included tape drives, autoloaders and libraries based on the LTO tape technology platform as well as the disk-based removable storage system **actiDisk** RDX. The products range of the storage expect further includes LTO and RDX media.

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actidata
We care about data

actiNAS Series

www.actidata.com

actiNAS 400 & actiNAS 400 Express, actiNAS 800 & actiNAS 1600

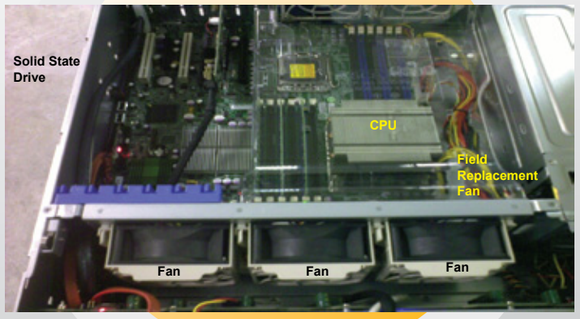
- **Enable multiple users to share the same storage space at once, and minimizes administration overhead by centrally managing hard disks**
- **File sharing of servers & clients running different operating systems via protocols such as CIFS**
- **Simplify manageability and improve data access to clients and applications**
- **Fuss-Free Installation**
  - Hardware and WSS2008 (64bit) is pre-installed.
- **Not just NAS**
  - WSS2008 Standard Edition is complete with advance technologies such as **iSCSI** and **SIS**.
- **Snapshots functionality to quick restore to x-point in time**
- **Optional SCSI Interface for D2D2T operation (4, 8 and 16 Bays NAS)**
  - Reduced backup & recovery window
  - Improved backup reliability

Solid State Drive For actiNAS 800 & actiNAS 1600

actiNAS 800

actiNAS 1600

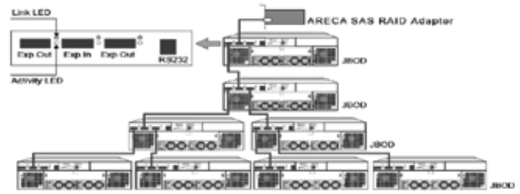
Internal Architecture actiNAS 800 & actiNAS 1600



Specification

General	actiNAS 400 Express	actiNAS 400	actiNAS 800	actiNAS 800 HA	actiNAS 1600 / JBOD
Processor	Intel Dual Core E5300 (2MB L2 Cache, 2.6GHz)	Intel Dual Core E6300 (2MB L2 Cache, 2.8GHz)	Intel Quad-Core Xeon X3430 (8MB L3 Cache, 2.4GHz)	Intel Quad-Core Xeon X3430 (8MB L3 Cache, 2.4GHz)	Intel Quad-Core Xeon E5506 (4MB L3 Cache, 2.13GHz)
Form Factor	1U	1U	2U	1U	3U
Memory	2GB standard, expandable to 8GB (DDR3-1066 / 1333 DIMM memory)	2GB standard, expandable to 8GB (DDR3-1066 / 1333 DIMM memory)	2GB standard, expandable to 32GB (DDR3-1066 / 1333, ECC / non-ECC DIMM memory)	4GB standard, expandable to 32GB (DDR3-1066 / 1333, ECC / non-ECC DIMM memory)	3GB standard, expandable to 96GB (DDR3-1066 / 1333, ECC / non-ECC DIMM memory)
No. of CPU	1	1	1	1	1 (upgradable to 2)
Storage					
HDD Interface Technology	Serial-ATA II / SAS 3Gbps	Serial-ATA II / SAS 3Gbps	Serial-ATA II / SAS 3Gbps	SAS / SATA 3Gbps	Serial-ATA II (Hot Swappable) / SAS 3Gbps
No. of HDD	4	4	8 (more by adding additional RAID enclosures)	8 x 160GB (2.5" SSD)	16 (more by adding additional RAID enclosures)
Solid State Drive (SSD)	-	-	40GB	40GB	40GB
Type of RAID	Hardware Serial-ATA II / SAS RAID	Hardware Serial-ATA II / SAS RAID	Hardware Serial-ATA II / SAS RAID	Hardware RAID Controller with IOP348	Hardware Serial-ATA II / SAS RAID
Raid level Support	RAID level 0, 1, 3, 5 and 6	RAID level 0, 1, 3, 5 and 6	RAID level 0, 1, 3, 5, 6, 10, 30, 50, 60 or JBOD	RAID level 0, 1, 3, 5, 6, 30, 50 and 60	RAID level 0, 1, 3, 5, 6, 10, 30, 50, 60 or JBOD
Interface					
LAN	2 x Auto Sensing Gigabit NICs embedded 10 / 100 / 1000 Mbps (RJ45)	2 x Auto Sensing Gigabit NICs embedded 10 / 100 / 1000 Mbps (RJ45)	4 x Auto Sensing Gigabit NICs embedded 10 / 100 / 1000 Mbps (RJ45)	4 x Auto Sensing Gigabit NICs embedded 10 / 100 / 1000 Mbps (RJ45)	4 x Auto Sensing Gigabit NICs embedded 10 / 100 / 1000 Mbps (RJ45)
SCSI	N.A. (optional Add-on)	N.A. (optional Add-on)	N.A. (optional Add-on)	N.A. (optional Add-on)	N.A. (optional Add-on)
SAS	N.A. (optional Add-on)	N.A. (optional Add-on)	N.A. (optional Add-on)	1 x Integrated SAS port	1 x Integrated SAS port
USB	2 x USB 2.0 port	2 x USB 2.0 port	4 x USB 2.0 port	4 x USB 2.0 port	4 x USB 2.0 port
RS232	1 x Serial port	1 x Serial port	1 x Serial port	1 x Serial port	1 x Serial port
Electrical Rating					
Type	Single PSU	Single PSU	Single PSU	Single PSU	Redundant Power Supply
Rated Voltage	Auto ranging 100 to 240 VAC @ 50 / 60 Hz	Auto ranging 100 to 240 VAC @ 50 / 60 Hz	Auto ranging 100 to 240 VAC @ 50 / 60 Hz	Auto ranging 100 to 240 VAC @ 50 / 60 Hz	Auto ranging 100 to 240 VAC @ 50 / 60 Hz
Rated Current	3.2 - 6.3 Amp	3.2 - 6.3 Amp	4 - 8.5 Amp	10 - 14 Amp	10 - 14 Amp
Power Supply	450W	450W	560W (80Plus Gold-Level Certified)	560W (80Plus Gold-Level Certified)	800W
Operating Systems					
NAS Operating Systems	Microsoft® WSS™2008 64bit Basic Edition	Microsoft® WSS™2008 64bit Workgroup Edition	Microsoft® WSS™2008 64bit Standard Edition	Microsoft® WSS™2008 64bit Standard Edition	Microsoft® WSS™2008 64bit Standard Edition
SMB Connections	20	50	Unlimited	Unlimited	Unlimited
Network File System Protocol	SMB / CIFS, NFS, DFS, Appletalk, HTTP & FTP			SMB / CIFS, NFS, DFS, Appletalk, HTTP & FTP	
Management Interface	Remote Desktop			Remote Desktop	
Management Protocol Support	SNMP, SMTP notification			SNMP, SMTP notification	
Access Control	N.A.			Active Directory Service, UNIX NIS	
Snapshot Technology	Microsoft Volume Shadow Copy Services (VSS)			Microsoft Volume Shadow Copy Services (VSS)	
Backup Software	Windows backup (or Optional 3rd party that supports WSS2008)			Windows backup (or Optional 3rd party that supports WSS2008)	
Anti-Virus	Optional 3rd party that supports WSS2008			Optional 3rd party that supports WSS2008	

actiNAS 1600 expands via JBOD

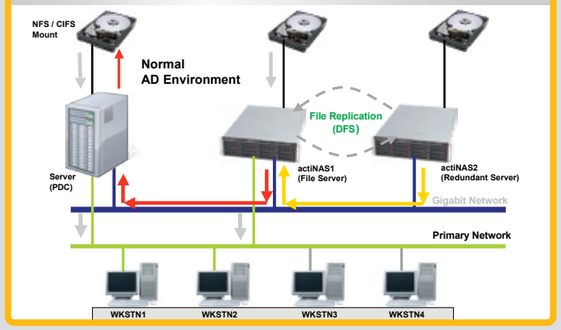


External connector to a drive box or drive enclosure

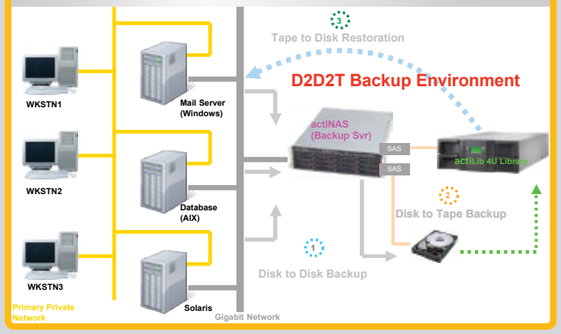
The following table is the max no. of SAS RAID controller supported:

	Disks/Enclosure	Expander	Disks/Controller	Volume
Max No.	32	8	128	128

actiNAS as File Server



actiNAS as a Backup Server



actiNAS & JBOD for DVR Server Storage Expansion